

REMARKS

Claims 1-50, of which claims 1-42 and 46-50 are under consideration, are all the claims now pending in the application. Claims 43-45 have been withdrawn from consideration. New claim 50 has been added. Applicant herein amends claim 32 to overcome a rejection under 35 U.S.C. § 112, ¶2.

Preliminary and formal matters.

The Examiner objected to figure 1 because the lead line for reference 8 does not point to the packing member. Applicant respectfully requests the Examiner to withdraw this objection in view of the Proposed Drawing Correction being filed herewith.

The Examiner rejected claim 32 under 35 USC § 112, second paragraph, for indefiniteness. Applicant respectfully requests the Examiner to withdraw this rejection in view of the above-identified self-explanatory amendment to claim 32.

The prior art rejections.

The Examiner has identified and applied two new references. The Main reference is an ancient reference from 1947, and relates to a complex coupling device. The coupling device requires an outer sleeve that couples two different body parts together. The De Visscher reference is more recent, dating back only to 1973, and relates to a way in which a hose for a scuba tank can be mated with a hose for a mouthpiece underwater, without getting water in the line.

In particular, the Examiner rejected independent claim 5 and its dependent claims under 35 USC § 102(e) as being anticipated by Barinaga. Except for the claims indicated as being allowable (i.e., claims 27 and 29), all of the other claims stand rejected under 35 USC § 103(a) as being unpatentable over Barinaga in view of De Visscher and Main.

The rejection of independent claim 5 and its dependent claims.

The Examiner rejected independent claim 5 and its dependent claims under 35 USC § 102(e) as being anticipated by Barinaga. This rejection is respectfully traversed, in view of the requirement of claim 5 for:

a packing member provided in said ink supply port, forming an ink channel for allowing a flow of ink, said packing member sealing the ink supply needle of the printing apparatus

by fitting therewith, said packing member comprising a hole and a protruding rim surrounding said hole;

In making this rejection, the Examiner asserted that Barinaga teaches such a packing member at item 104. This part may be seen perhaps best in figure 1, in which part 104 is shown in an exploded view. Part 104 has a slit, not a hole. In column 6 of Barinaga, at lines 40-45, Barinaga mentions that item 110 of septum 104 is a slit. A slit is not a hole, and does not meet the requirement for a hole. Moreover, the Barinaga slit lacks the required protruding rim. It is not apparent how a slit could have a rim, anyway.

Drawing the attention of the Examiner to one of the possible embodiments in the description, packing member 8 of figure 2 is depicted. The hole of the packing member is referred to by reference numeral 32. An even better view may be seen in figure 12.

Because claim 5 requires that the packing member have a hole with a protruding rim around it, and because Barinaga does not teach or suggest such a feature, Barinaga does not anticipate independent claim 5 within the meaning of 35 USC § 102, or any of its dependent claims (i.e., claims 6, 7, 10/5, 11/10/5, 12/11/10/5, 36/11/10/5, 13/10/5, 37/5, 38/5, 39/38/5, 40/39/38/5, 41/40/39/38/5, or 42/38/5).

To facilitate the prosecution of this application, Applicant now considers whether the missing requirement of independent claim 5 can be found in the Main or the De Visscher references. In the Main reference, the spherical ball is against a valve seat 15 which does not have a hole. Nothing in Main reasonably constitutes a hole. In De Visscher, the head of the piston 72 lacks a hole. Applicant respectfully submits that neither Barinaga, nor Main, nor De Visscher, nor their combined teachings taken for what they would have meant as a whole to an artisan of ordinary skill, teaches or suggests the structure clearly claimed in independent claim 5. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of independent claim 5 and its dependent claims.

It is respectfully also pointed out that the Main and De Visscher references are not reasonably pertinent to the problem solved by Applicant. In particular, these two references are non analogous art. Main and De Visscher are non analogous for several reasons. First of all, each of them requires an outer sleeve to make the connection work (in Main, it is item 4, and in De

Visscher it is also item 4). Someone attempting to connect an ink cartridge to an ink jet printhead would never have consulted these references because they require, for their proper operation, the actual use of the outer sleeve to effect the connection. The connections do not work without the outer sleeve, and such an arrangement is much too cumbersome for using in a printhead.

The De Visscher reference is positively designed so as to spew forth fluid from the fluid container to the outside during the coupling process. That is because the De Visscher reference is meant to connect a scuba tank to a hose for a mouthpiece underwater, without letting any water into the breathing line. As the arrows show on the main faceplate of the patent, the contents of the scuba tank are pressurized so as to expel all of the water outside of the sleeve 4 through openings 22 in the sleeve. The water is expelled using the pressurized air. Applying this teaching to the problem at hand, it would result in a connection that avoids having air in the line at the expense of squirting ink all over the place.

Furthermore, the De Visscher and Main references require extremely complicated machining and do not commit themselves to someone seeking to create an economical ink cartridge.

For all of these reasons, therefore, it is respectfully submitted that independent claim 5 patentably distinguishes over not only Barinaga, but also any possible rejection that could be made in view of Barinaga, Main, and De Visscher.

The allowance of independent claim 5 is further respectfully requested in view of the requirement in claim 5 in the preamble that the ink cartridge be removably attachable to a printhead. In Barinaga, there is no such teaching. On the contrary, Barinaga teaches that the ink cartridge should be inserted into a docking station and not into a printhead. At column 9, lines 5-10, Barinaga states:

A trailing tube 169, seen in figure 11, is connected to the lower end of the needle 162 in fluid communication with the blind bore 166. The trailing tube 169 leads to a printhead (not shown).

There is no need for the Examiner to revisit the disclosures of Main or Fisher for such a teaching of attaching an ink cartridge to an ink jet printhead, because these references have nothing to do with ink jet printers.

Even taken together, for what they would have meant to an artisan of ordinary skill, the combined teachings of these three references fail to teach or suggest an ink cartridge removably attachable to the printhead of an ink jet printer.

The rejection of independent claims 1, 2, 4, 8, 9, 46, 48, 49, and their respective dependent claims.

Except for claims 27 and 29, the Examiner rejected all of the other claims under 35 USC § 103(a) as being unpatentable over Barinaga in view of De Visscher and Main.

First, Applicant respectfully submits that this rejection is void because it is based on non analogous prior art. This point has been already discussed above.

Second, Applicant respectfully submits that combining the teachings of Main and De Visscher with those of Barinaga would result in a device that includes an outer sleeve or wing-nut, which would render the ink cartridge unusable for its intended purpose.

Third, the rejection is based on reasoning that relies upon *per se* rules of obviousness. In particular, the Examiner asserted that "it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art." The Examiner also asserted that "modification involving a change in shape of a disclosed element merely involves routine skill in the art." Apparently, the Examiner believes that no change in shape or combination or separation of elements could ever be unobvious. Under this reasoning, everything is obvious because everything involves only changing the shape of things, or combining parts together, or separating them into different parts.

The United States Court of Appeals for the Federal Circuit has expressly stated that all *per se* rules of obviousness are legally invalid and that the obviousness analysis must be based on the prior art:

The use of *per se* rules, while undoubtedly less laborious than a searching comparison of the claimed invention -- including all its limitations -- with the teachings of the prior art, flouts section 103 and the fundamental case law applying it. *Per se* rules that eliminate the need for fact-specific analysis of claims and prior art may be administratively convenient for PTO examiners and the Board. Indeed, they have

been sanctioned by the Board as well. But reliance on per se rules of obviousness is legally incorrect and must cease. Any such administrative convenience is simply inconsistent with section 103, which, according to Graham and its progeny, entitles an applicant to issuance of an otherwise proper patent unless the PTO establishes that the invention as claimed in the application is obvious over cited prior art, based on the specific comparison of that prior art with claim limitations.

In re Ochiai, 71 F.3d 1565, 1572, 37 USPQ2d 1127, 1133 (Fed. Cir. 1995).

Here, the Examiner has avoided the necessary fact-specific analysis with regard to the claim elements dismissed by the use of the per se rules of obviousness. The Examiner is respectfully invited to come forth with appropriate prior art in the relevant technical field that meets these requirements.

New claim 50.

The newly added claim 50 is patentably distinguishable in view of its dependence from independent claims demonstrated to be allowable, and also in view of its own requirements for features not taught or suggested in the prior art.

Conclusion and request for telephone interview.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

Applicant files herewith a Petition for Extension of Time for two months, an Excess Claim Fee Payment Letter, a Proposed Drawing Correction, and an IDS.

Amendment Under 37 C.F.R. § 1.111
U.S. Appln. No. 09/437,246
Atty Docket No. Q56708

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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